

REMARKS/ARGUMENTS

The Examiner is thanked for the thorough examination of the present application. Applicant has carefully considered the examiner's opinion and thereby made an amendment to the claims. Claims 1-9 and 11-16 remain in this application and no new matter is entered to any of the remaining claims. Applicant respectfully requests reconsideration for at least the reasons set forth herein.

Response to the claim rejections:

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Claims 1-8, 13 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Vegt (U.S. Patent No. 6,038,433). This rejection is respectfully traversed with respect to the amendments to the independent claims 1 and 5.

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Applicant asserts that the amended claim 1 is patentable over Vegt because Vegt at least fails to disclose a combination of the following limitations: "scanning a plurality of frequency bands; and analyzing at least one of the frequency bands to determine if the frequency band holds a received signal, if it does: detecting a frequency response of the received signal, comprising: detecting energy magnitudes of the received signal corresponding to a plurality of frequencies; generating an averaging result according to the energy magnitudes; and acquiring the frequency response of the received signal according to the averaging result; and detecting a characteristic of a channel according to the frequency response of the received signal; wherein the received signal corresponds to the channel". Applicant also asserts that the amended claim 1 is patentable over Vegt in view of Sugar et al. (U.S. Publication No. 2004/0028123 A1) and/or Sakashita et al. (U.S. Patent No. 4,939,789) because these prior arts, either singularly or in combination, nowhere teach or suggest the combination of the above-underlined limitations. Therefore, the amended claim 1 is allowable over Vegt and Vegt in view of Sugar et al. and/or Sakashita

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et al. As claims 2-4 are dependent upon claim 1, if claim 1 is found to be allowable, so to should the dependent claims.

5 Regarding claim 5, Applicant asserts that the amended claim 5 is patentable over Vegt or Vegt in view of Sugar et al. and/or Sakashita et al. because of the same reasons as discussed in claim 1. As claims 6-9 and 11-16 are dependent upon claim 5, if claim 6 is found to be allowable, so too should the dependent claims.

Conclusion:

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Thus, all pending claims are submitted to be in condition for allowance. The Examiner is encouraged to telephone the undersigned if there are informalities that can be resolved in a phone conversation, or if the Examiner has any ideas or suggestions for further advancing the prosecution of this case.

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Sincerely yours,



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25 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)